

Fig. 1

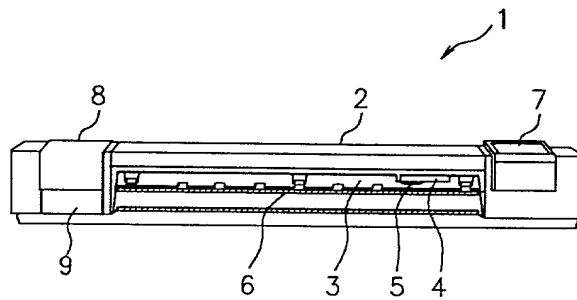
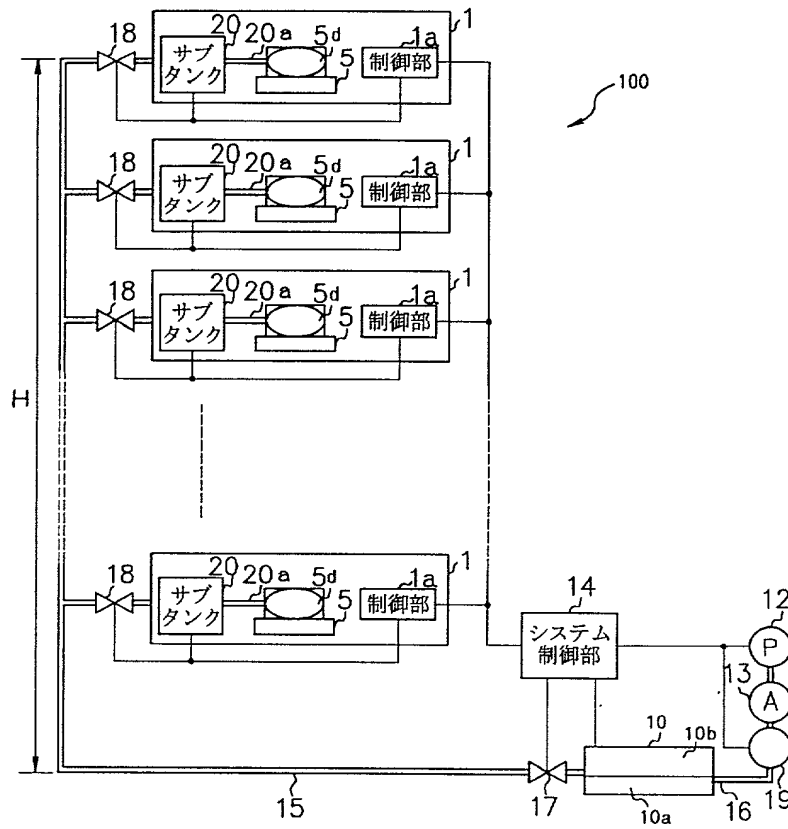


Fig. 2



12: controller  
 14: system controller  
 20: subtank

*Fig. 3*

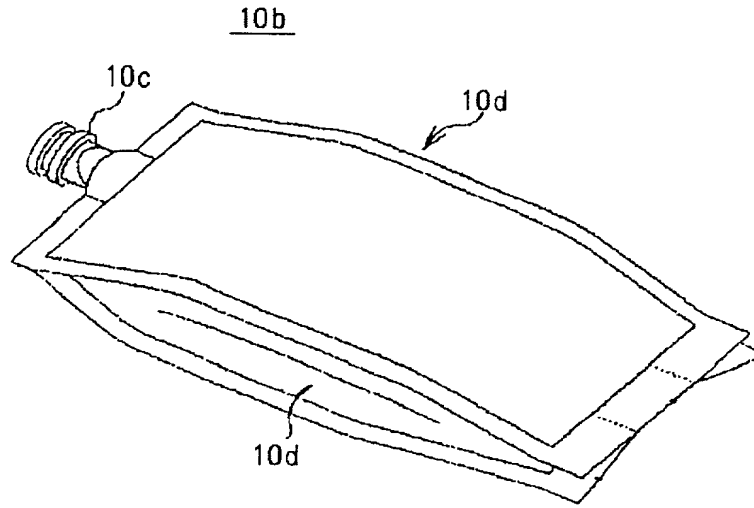


Fig. 4A

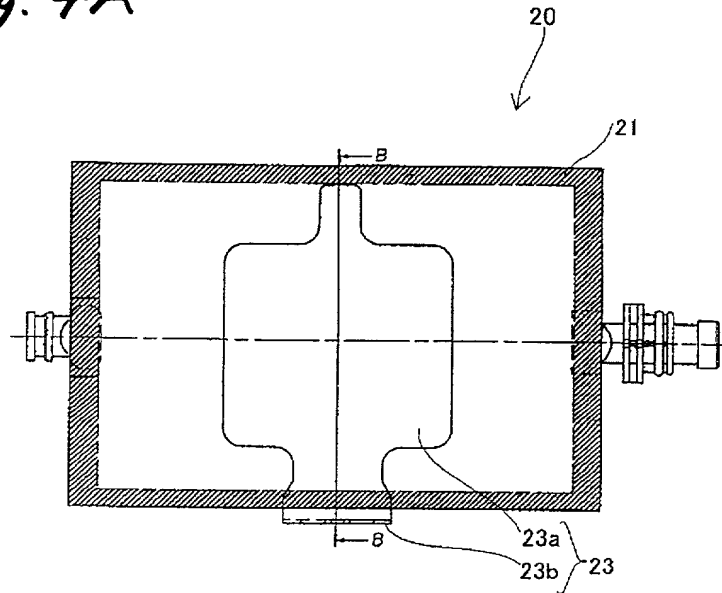
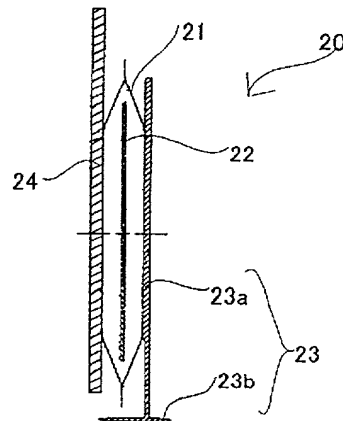


Fig. 4B



*Fig. 5*

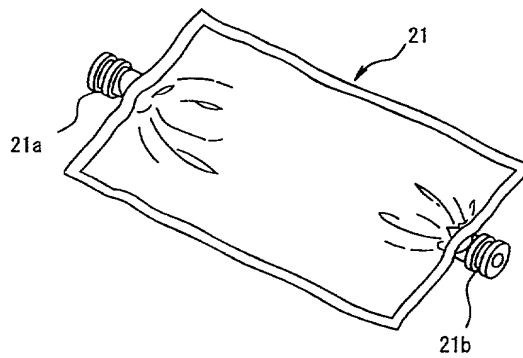


Fig. 6F

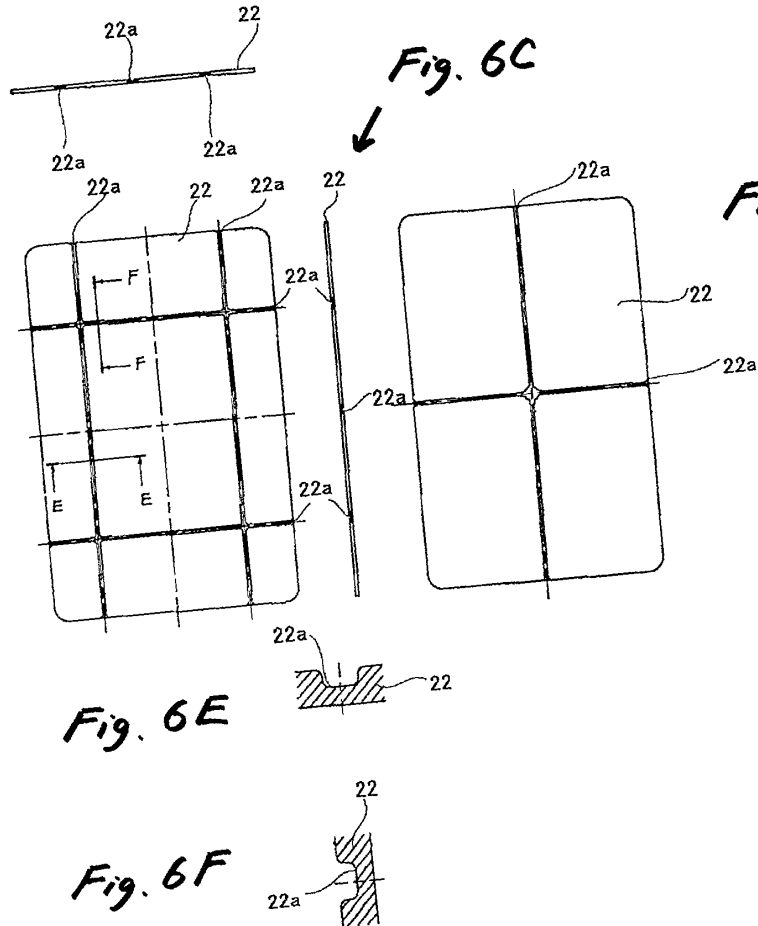


Fig. 7A

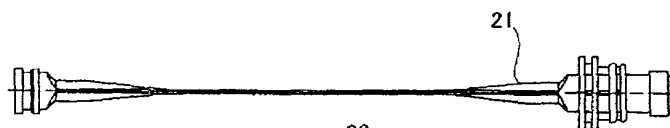


Fig. 7B

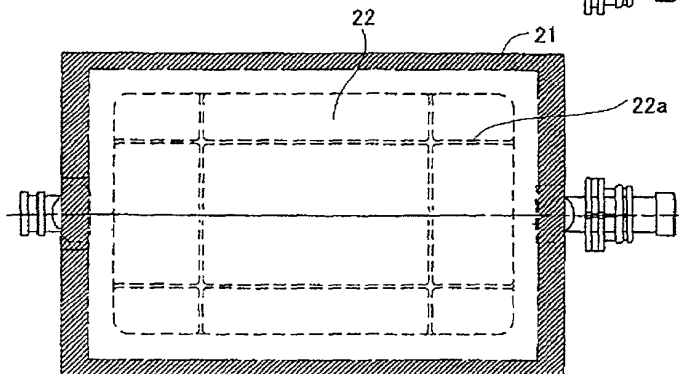


Fig. 8A

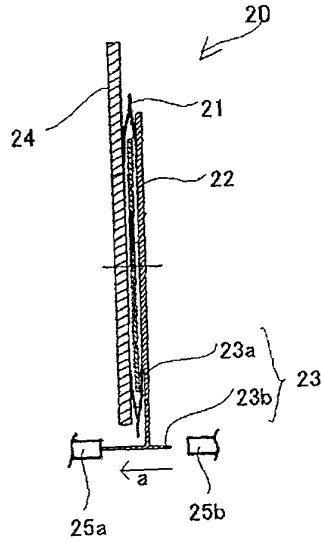


Fig. 8B

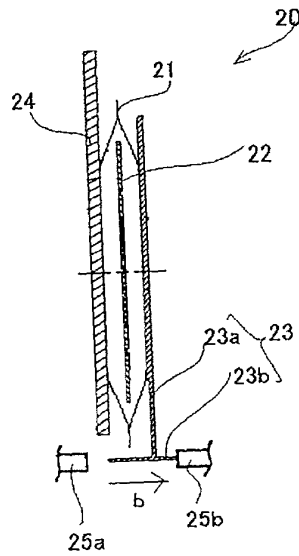




Fig. 9A



Fig. 9B

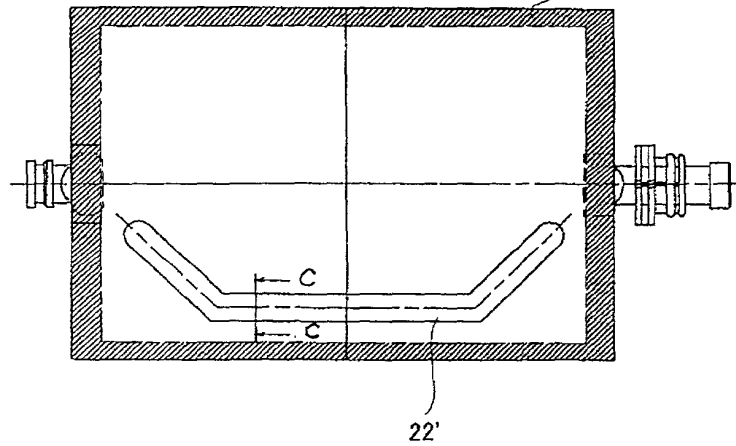


Fig. 9C

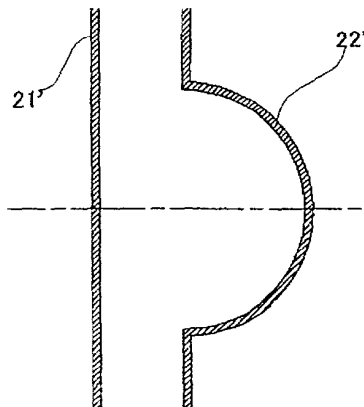
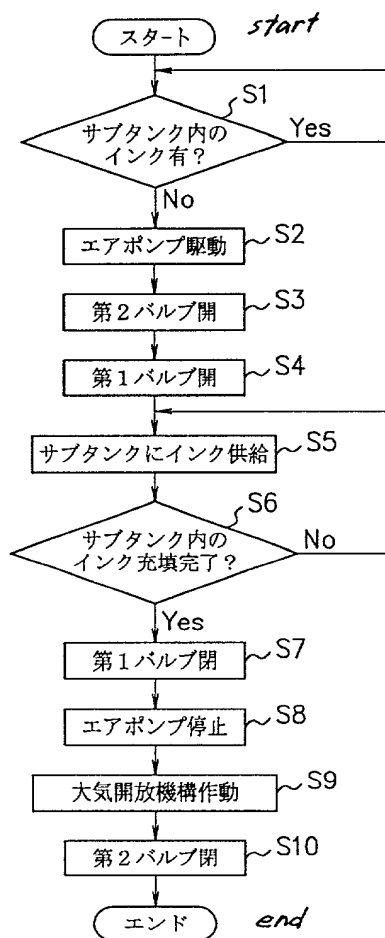
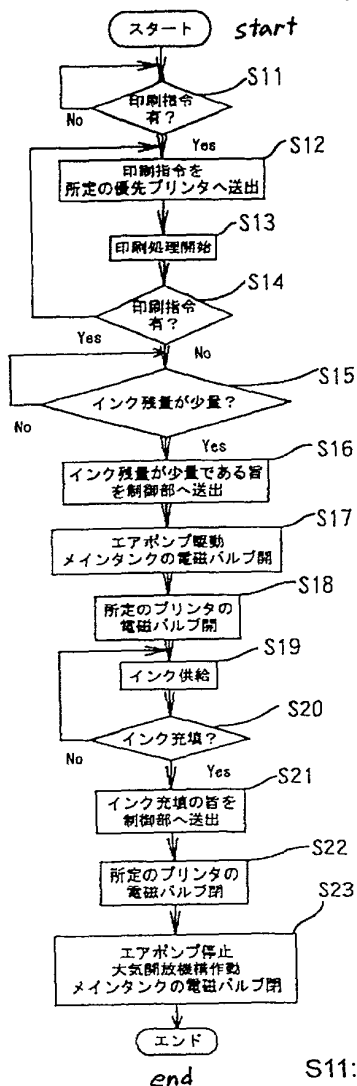


Fig. 10



- S1: ink is left in subtank?
- S2: drive air pump
- S3: open main valve
- S4: open subvalve
- S5: supply ink to subtank
- S6: ink replenishment to subtank is completed?
- S7: close subvalve
- S8: stop air pump
- S9: activate air releaser
- S10: close main valve

Fig. 11



- S11: print command is received?  
 S12: send print command to predetermined priority printer  
 S13: start print processing  
 S14: print command is received?  
 S15: ink low state?  
 S16: notify ink low state to controller  
 S17: drive air pump  
     open main valve  
 S18: open subvalve of priority printer  
 S19: supply ink to subtank of priority printer  
 S20: ink replenishment is completed?  
 S21: notify replenishment completion to controller  
 S22: close subvalve of priority printer  
 S23: stop air pump  
     activate air releaser  
     close main valve

205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000																					
100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000
100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	6																																																																					

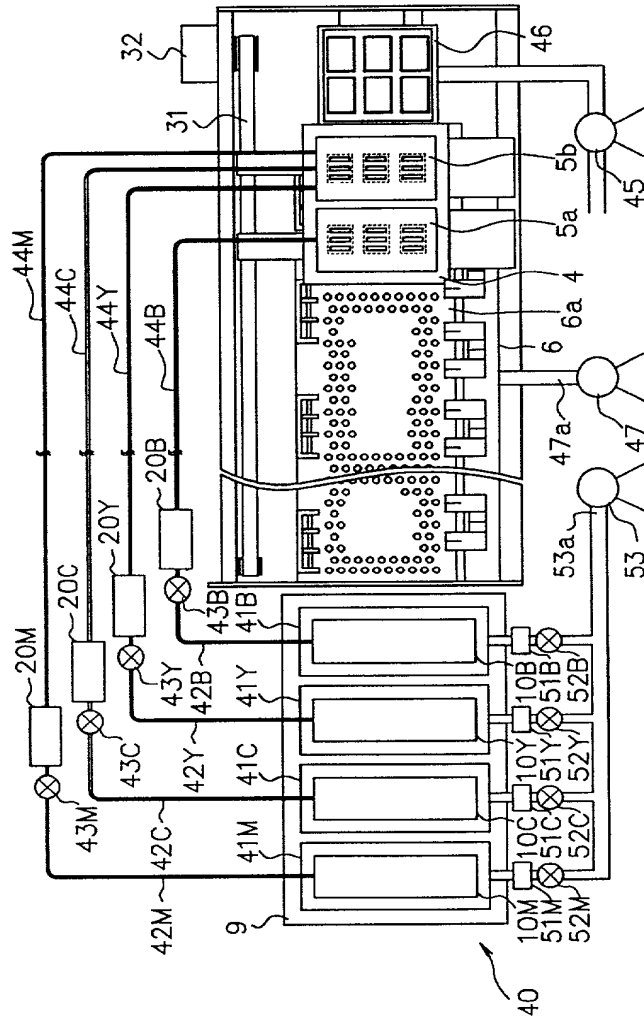


Fig. 13

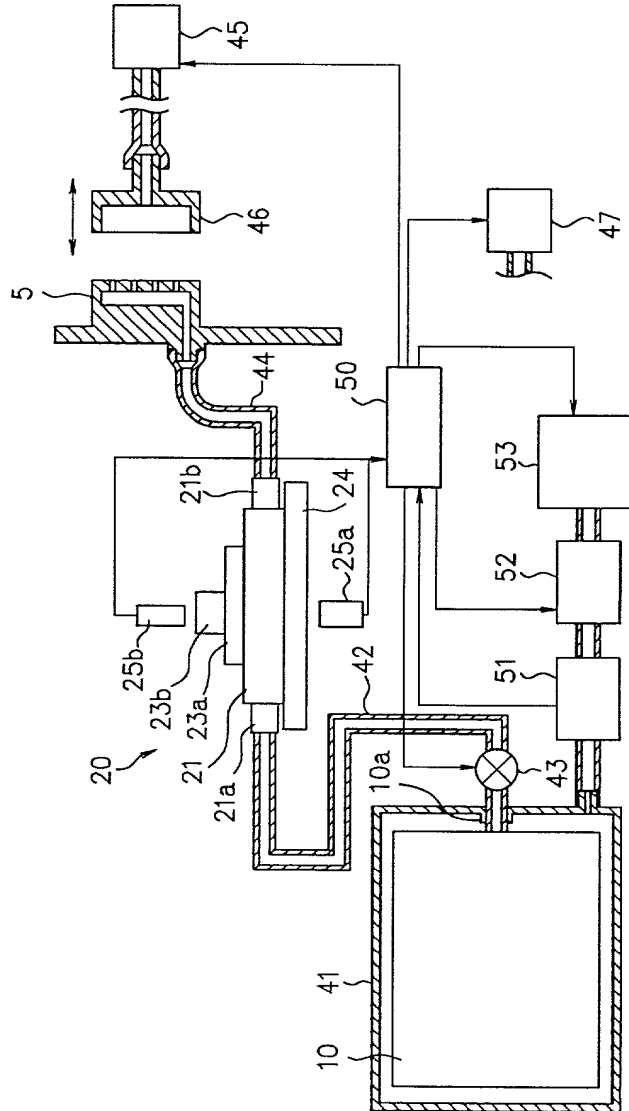
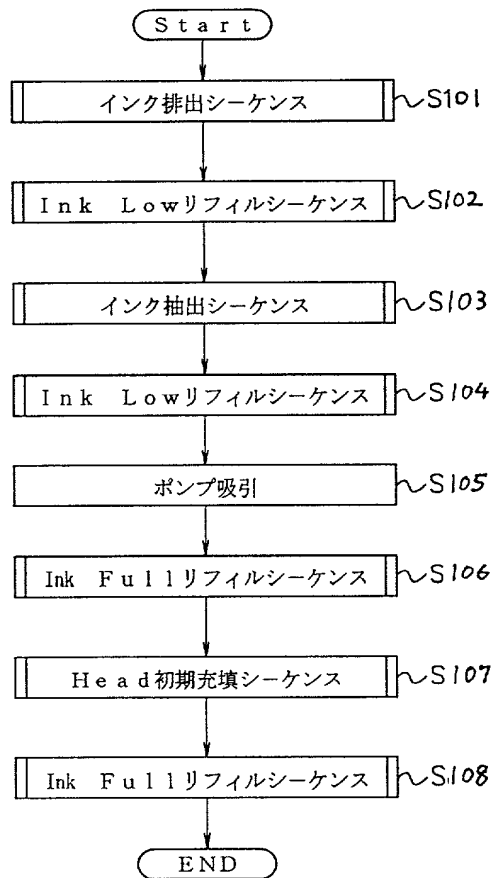
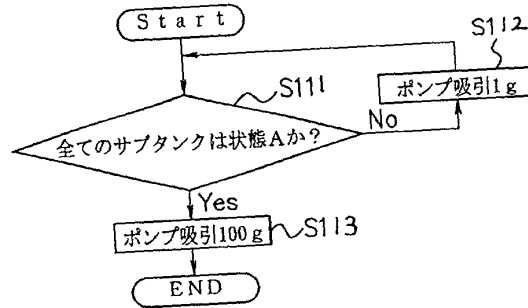


Fig. 14



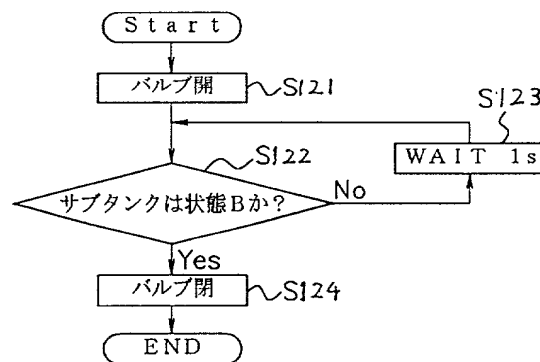
- S101: exhausting sequence  
S102: refilling sequence (ink low state)  
S103: exhausting sequence  
S104: refilling sequence (ink low state)  
S105: ink suction  
S106: refilling sequence (ink full state)  
S107: initial filling sequence for head  
S108: refilling sequence (ink full state)

Fig. 15



S111: all sub tanks are in ink low state?  
S112: ink suction (1g)  
S113: ink suction (100g)

Fig. 16



S121: open valve

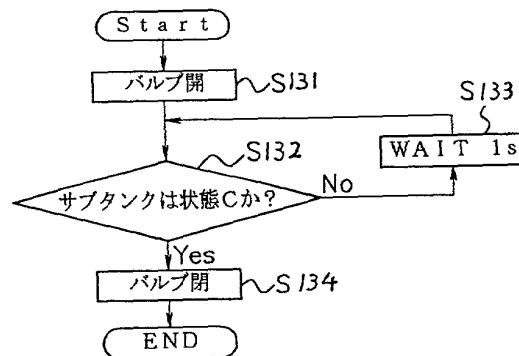
S122: subtank is in intermediate state?

S123: wait 1sec

S124: close valve



Fig. 17



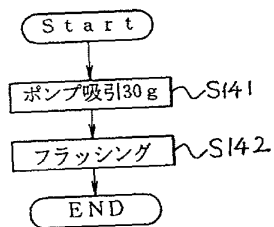
S131: open valve

S132: subtank is in ink full state?

S133: wait 1 sec

S134: close valve

Fig. 18



S141: ink suction (30g)

S142: flushing

Fig. 19

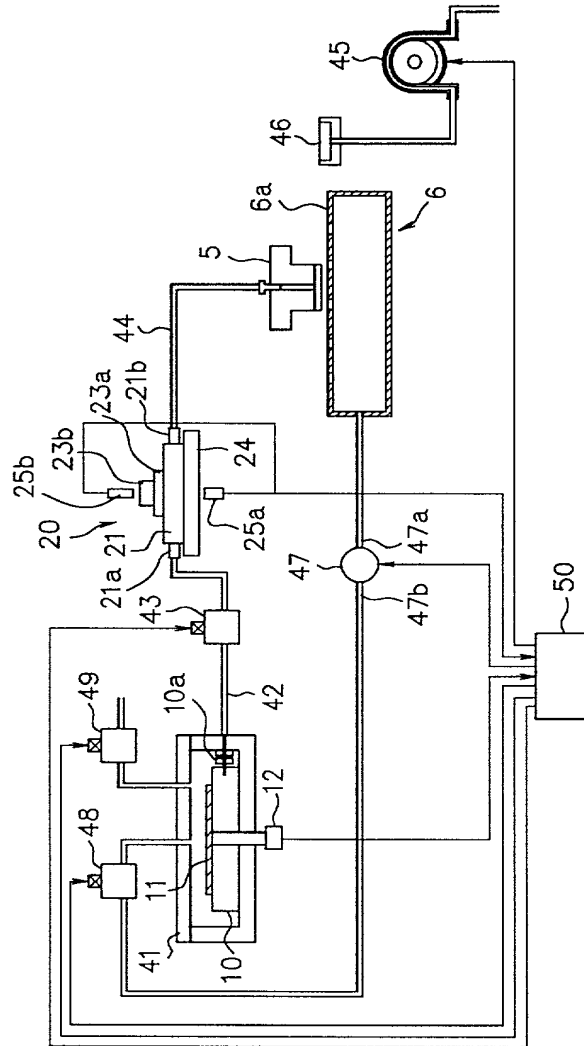
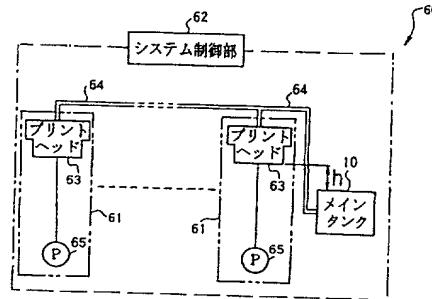


Fig. 20



10: main tank  
 62: system controller  
 63: recording head

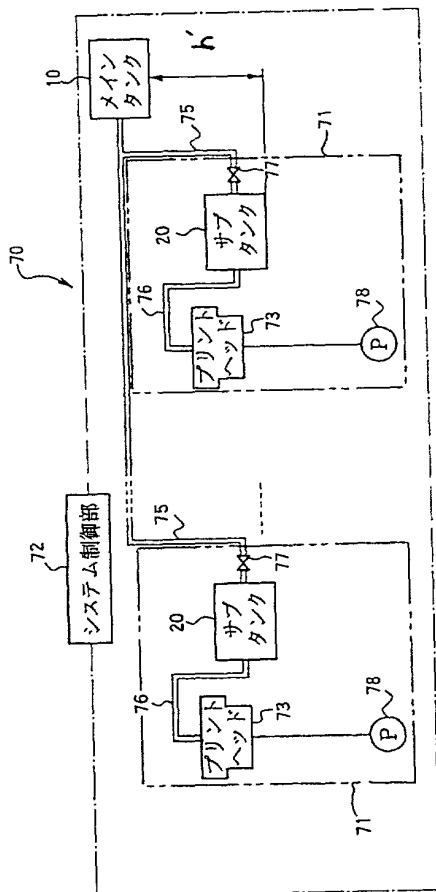
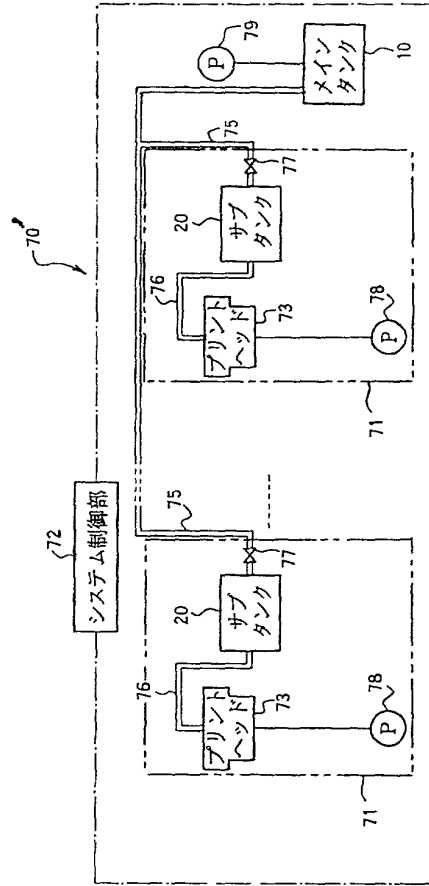


Fig. 21

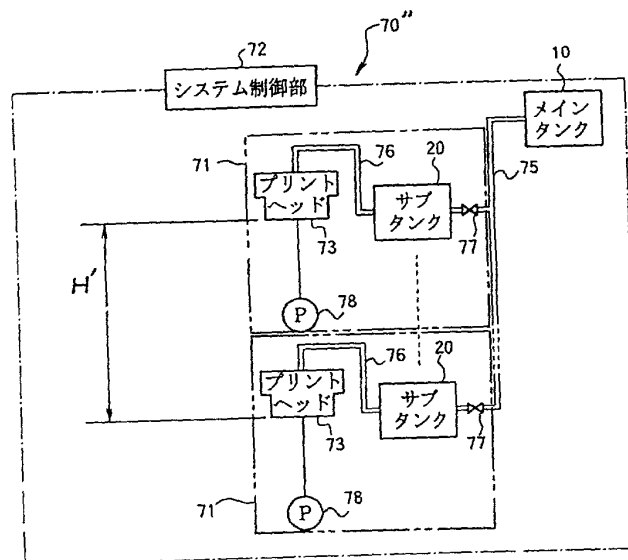
- 10: main tank
- 20: sub-tank
- 72: system controller
- 76: recording head

Fig. 22



- 10: main tank
- 20: sub tank
- 72: system controller
- 73: recording head

Fig. 23



- 10: main tank
- 20: subtank
- 72: system controller
- 73: recording head